



Ø BEAT

COLO. SPRINGS,
COLORADO

JANUARY 1974



FCC HIGHLIGHTS

by Bill Grenfell, W4GF

It is apparent that many amateurs do not understand the rules concerning their use of the amateur station call sign, as what call sign to use and how often to transmit it.

Effective over a year ago, new Section 97.87 (d) states that "Under conditions when the control operator is other than the station licensee, the station identification shall be the assigned call sign for that station....." Because it was in the Docket 18803 "repeater" rule amendments, many missed its major applicability to other operation. Discussion of the rule with the FCC staff reveals the intent that there will be no exceptions. If you operate at a location specified on another amateur's station license, you must identify all

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PRESIDENT'S NEWS

Russ Ruggieri WØGKF

The PPRAA Christmas party was a great success. I think all who attended will agree. I believe the Flying W Winter Steak House was a fine choice and deserves consideration for next year's party. Special thanks to Gene and Arlene for taking care of the arrangements.

It has been long over due, the metric system that is. This will be the program topic for the first meeting of the New Year. I have a short film of this subject for the January 9th meeting.

For RTTY news, join us on 146.70, the national RTTY frequency. For more information or help, phone WØHFX, Paul at 635-3773; WØ ITU, Don at 598-8930; KØROL, Oak at 596-1395, or WØNDZ, Bob at 598-2502.

ZERO BEAT

Published in the interest of the members
of the Pikes Peak Radio Amateur Association
Inc. Colorado Springs, Colorado

R. Charles Smith, WØZZS
Editor, Phone 635-7353



Address all items and exchanges to:
2611 No. Farragut Avenue
Colorado Springs, Colorado 80907

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Ed Pompea, KØZPG, Business Manager
2111 Trent Ave. Colo Springs, Co 80909
Phone 635-7554

James DonCarlos, WØITU, Distribution
4118 Garret Place, Colo. Spgs. Co 80907
Phone 598-8930

The PPRAA meets at 7:30 P.M. on the second
Wednesday of each month in the Security
Savings & Loan Building, East Platte at
Union Boulevard.

PPRAA DIRECTORS

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Russ Ruggieri WBØGKF
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DISCOVER AMATEUR TV

Bruce Brown, WB4YTU

Part 2 - Continued from December.
The easiest and most economical
means of transmitting television
is through the use of modified
surplus 450-470 MHz transceivers
such as the RCA CMU-15 or Moto-
rola T44. These units can be
purchased for \$15 to \$25 each de-
pending upon condition. Of the
two, the CMU-15 transmitter is
the simplest to convert for ATV:
however, its narrowband receiver
is useless for video reception
purposes. On the other hand the
T44 has an excellent receiver
that can be adapted for video re-
ception.

The first step in the conversion

process is to replace the rig's
existing 12 VDC supply with an AC
unit. SSB transceiver supplies
such as the Heath HP-23 have been
successfully used in this role.
Next, a 439.25 MHz Xtal (east
coast ATV simplex frequency)
should be installed with the os-
cillator/multiplier coil and
final cavities adjusted for max-
imum carrier output. A 15 to 35
watt output should be obtainable
depending upon final plate voltage.

Video is added to the signal
through amplitude modulation of
the carrier. This is accomplished
through use of an ATV grid mod-
ulator. The bias wire to the
final grid is disconnected and re-
placed with the output line of the

(Continued on Page 5)

NEW DAYTIME NTN OPERATING

Uncle Walt, KØSPR

A new daytime national traffic net was started April 1, 1973 on an experimental basis to determine if this net could be of real service to the National Traffic System.

The net is known as CTN and meets 7 days a week on a frequency of 14.315 MHz at 1730Z. The net's main purpose is to handle only formal written traffic so that the traffic will be available for the evening regional nets. Assistance will be given where possible for other amateurs to establish phone patches, but they are requested to move off the net frequency for such purposes.

The volume of traffic being transmitted has been increasing each month. This summer many hundreds of messages from the two National Boy Scouts of America Encampments in Idaho and Pennsylvania was handled each day during the "Jamborees".

Locally, KØSPR is one of the region twelve receive stations and also acts as a relay station for the daily net controls. Any amateur having or knowing of a person who has urgent messages to be sent to any of the fifty stations can have such messages put on the net by calling Walter W. Melvin in Pueblo by phone at 542-6783 or on WAØSNO and the message will be arranged in proper form for transmission anywhere in the United States

GRID LEAK

NEW REPEATER IN AREA

Among a very limited number of new WRØ type licenses recently received in the area was a license for a repeater to be used on 28-88. The station has a good signal in the Longmont area and is on the air on a part-time basis with plans for eventual continuous operation. The station is under the sponsorship of the Denver Radio League.

QSP

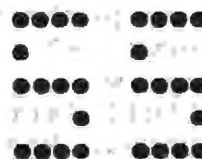
FACT

The next time you're tempted to use a PL-259 series connector on VHF, remember that each connector can cost you approximately 1/2 db of loss! Even more on 450 Mhz. Fellas put up a pair of beams, used a coax tee to join the matching harness to the feed-line, plus a connector at each antenna, plus a connector at the radio; that's at least 3db of loss. The fella on the other end would have to double his transmitter power to make up for the loss! Type N connectors are a bit more trouble to use, but well worth it.

QSP

CODE AND THEORY CLASSES

At 7:30 P.M. every Tuesday at the Naval Reserve Training Center by Prospect Lake, Fred Palmblad, WØCYM is conducting code and theory classes. If enough persons are interested, code and theory help will be given to those interested in working for their Technician, General, Advanced and Extra Class tickets. Attendance is reported as very good and Fred stated he could use some help from any old hands who could spare the time. There is no charge for the classes, just a willingness to learn.

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GEORGE WØGCH

ROUTE MANAGER'S CORNER

by Jim Clagett, KØOTH

1. SIMULATED EMERGENCY TEST

The following are a few excerpts from December QST and the League SET bulletin:

The 27th ARRL-sponsored Simulated Emergency Test will be held on the last weekend in January, the 26th and 27th....The purpose of the SET is to present realistic circumstances of disaster conditions to see how we amateurs can cope with and overcome the problems in providing a backup or emergency communications facility for the public....It is the intent of the SET that the activities prove educational, interesting, stimulating, and perhaps hectic....

Does this brief description bring back a few cherished memories of the SET in previous years? I remember sitting in an unheated Volkswagen with a 2-meter Benton Harbor "lunchbox" during the '62 SET in Minnesota. The temperature was 30° below zero with 40 mph winds blowing, and my microphone had a layer of heavy frost from my breath. I was supposed to be reporting damage at an airport during a simulated earthquake, and yet there we were in the middle of a real blizzard.

Hopefully we won't encounter such conditions in Colorado for this year's SET, but if we do, will we be able to perform our communications services? Or, more specifically, will you do your part to fulfill Part 97.1(a) of the U.S. Amateur Regulations? (Basis and purpose - "recognition of the value of the amateur service to the public as a voluntary non-commercial communication service, particularly with respect to providing emergency communications.")

Please read the article beginning

on Page 57 of December '73 QST. Then, call your local Emergency Coordinator and tell him you want to participate in the SET this year. Lastly, mark the weekend of January 26-27 on your calendar with the big letters "SET", and start getting yourself ready for a test of amateur radio's most important mission.

2. The New Mexico Route Manager, Hubert Williams (W5UH), has asked me to notify Colorado amateurs that he has started a daytime "frequency watch" on 7070 Mhz for traffic handling purposes. His National Traffic Frequency (NTF) is intended to supplement the NTS and to provide an outlet for traffic destined anywhere in the U.S. He monitors NTF himself 8-12 AM and 3-4:30 PM; W7FTR monitors it 1-3 PM (local Mountain time listed since the U.S. will be reverting to year-round daylight-savings-time soon). He encourages participation by all interested amateurs.

COLORADO LADIES RADIO LEAGUE

Mrs. Joan Ehlis, Pueblo, is the new president of the Colorado Ladies Radio League. The state-wide organization for women interested in and active in amateur radio was formed in 1961. There are approximately 4,000 amateur radio operators in the state with a third of the number women.

Others named were Mrs. Helen Cox, Pueblo, vice president; Mrs. Ollie Shriner, Pueblo, secretary; Mrs. Elaine High, Aurora, treasurer, and Mrs. Linda Vidmar, Colorado Springs, historian.

Plans for the new year include a membership drive to enroll those who are licensed, and aiding those interested in becoming licensed by the FCC, governing body. Also governing amateur radio is the ARRL, Newington, Conn.

GRID LEAK

modulator. The modulator is fed by the output of the camera which provides both the video and sync information. Driver plus final circuits of the rig should be re-adjusted to optimize picture quality as viewed on a non-overloaded TV monitor several miles away. A setting different from that for maximum power will generally provide the best picture.

There are two methods for adding audio to the signal. The easiest method is to frequency modulate the transmitted carrier with the desired audio signal. To achieve this, no further equipment modification is required since these surplus rigs already possess that capability. Thus the signal is amplitude modulated with video and frequency modulated with audio. While this technique is simple to implement, the drawback occurs at the receive end. A standard TV set will not be able to demodulate this signal since the audio track must be displaced from the carrier by 4.5 MHz. Therefore, in order to receive the audio data, a separate dedicated receiver tuned to the carrier frequency must be used. The other method, and the one that is fully compatible with home TV receivers is through use of a 4.5 MHz sub-carrier modulator. This unit may be built or bought commercially and is basically a low power 4.5 MHz FM transmitter. Its output is added to the camera's output immediately before the video modulator input. Thus the 439.25 MHz final transmitted signal contains video sideband generated above and below the carrier and also sidebands at 443.75 and 434.75 MHz carrying the audio portion.

More information next month.

AUTO-CALL

A girdle is a device to keep an unfortunate situation from spreading!

WAØSNO REPEATER NEWS

Bob Shriner WAØUZO

Well, what can you say when another month has gone by and the rascal just sits out there chugging away as happy as a lark.


We will probably go out to the site one of these days soon and clean all the relays and check it all over so we won't have to do it some cold night.

Would like to have more people check in on the Wednesday nite Net. If you have any suggestions for improving the repeater system or the service to you, this is a good time to air them.

At a meeting in Salida last weekend a group of interested hams, it was decided to put Methodist Mountain Repeater back on the air on 25/85. It will be a joint effort from Pueblo, Canon City, Buena Vista and the San Luis Valley.

Still no word on our license application. Guess maybe the FCC is on vacation!

Want ads to move equipment or to locate some hard-to-find items are free to any reader of ZERO BEAT. Mail (do not phone) copy to editor.



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FCC HIGHLIGHTS - Continued

operation with his call sign. It makes no difference whether you bring in your own gear (including even the antenna and power supply) or use his station equipment, you must use his sign, provided, of course, that you have his permission.

Several important requirements apply to the use of another amateur's station and/or call sign. The amateur operator "borrowing" use of the other's station location (and call sign) must be designated as the "control operator" by the station licensee for that location (see rule Section 97.79 (b)). Also, 97.79(a) and (b) places (legal) responsibility for proper operation on both the station licensee and the control operator. Paragraph (c) goes on to provide that the control operator who is a higher class than the station licensee may exceed the station licensee's privileges if he identifies appropriately. The station call sign must be followed by the operator's call sign, i.e. Wn4XYZ/W4XX (97.87(d)). The log of the station must at least be signed by the control operator (Section 97.103 (a) (1)). Of course if he is not present during the operation, the station licensee must require the control operator to make all required log entries. Compliance with rule Section 97.105 requires that a copy of the log of the other amateur's operation be kept available for commission inspection by the station licensee (for at least one year).

While the staff states there will be no exceptions, the rules do not preclude the issuance of more than one amateur station license at the same location. Therefore, if two or more qualified operators want to do so, they may secure one or more "primary" and/or "additional" station licenses for the same location as provided by Section 97.40(b) and (c). In the

past, operation under a club station license had been viewed as justifying exception to some requirements for individual station licensees. FCC staff has said that a club station license and call sign may not be used at any location where another amateur station is licensed - other than the station location specified on the club station license.

A lot of amateur operators transmit call sign much more frequently than the rule calls for but still often mis-identify at the proper time. It may help to review the purposes of identification. A call sign is used just like a name - to alert the other person that he is being called and by whom. To meet its responsibility for regulation of radio stations, the FCC must know which station is making a transmission it is hearing and it is sometimes important to know to whom the transmission is directed. Since the monitor may not hear the beginning, identification of the station at the end of a single transmission, or a series of transmissions when in communication with another station, is the single most important item in the identification requirements. The next most important requirement is to identify the station with which you are communicating,

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FCC HIGHLIGHTS - Continued

also at the end of your last transmission to it. The transmission of your station call sign at the beginning of your transmission is required for a single transmission or at the beginning of an exchange of transmissions with another station (or group). The latter requirement is almost always met anyway in the course of establishing communications. Keeping the foregoing principles in mind should take care of most identification requirements. If you have problems, study Section 97.87 and if still unsure, write the FCC Amateur and Citizens Division, Washington, D.C. 20554.

P.S. The Amateur and Citizens Division recently moved from 1919 M Street to 2025 M Street N.W., Washington, D.C.

AUTO-CALL

ARRL REQUESTS MEETING

It is rumored that the E.I.A. group supporting the CB take-over of part of our 220 Mhz band has held a closed-door meeting with the FCC. The ARRL has requested "equal time". See QST for future results.

QSP

The hardest thing in the world to open is a closed mind.

AUTO-CALL

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For Sale: Heath HW32A SSB 20 Meters, 200 watt transceiver with crystal calibrator HRA10-1 installed. Complete with HP-23 AC power supply, microphone, and all instruction books. Ready to operate - \$135. SP600 receiver: broadcast band thru 6 meters - \$150. Two Heath 2 meter lunch boxes, complete - \$25 each. Ed Pompea, KØZPG, Phone 635-7554.

For Sale: Mint AX-190 receiver with matching speaker - \$179. DX-606 - \$64; Hg 406 - \$39 or both for \$99. Regency monitor VHF receive (6 crystals) - \$14. 14AVQ with 80 meters loading coil - \$34. Two element 10, 15, 20 meter mini beam - \$24. Anyone interested in seeing any of this equipment call Dave, WBØFHO at 471-7024 or write to 11 Thayer Road, Colorado Springs.

Motorola Parts can be ordered from David Givan, KØIRP. Telephone 636-2589 or write P. O. Box 2043, Colorado Springs 80901.

Remember, no charge to any club member for classified ads on ham equipment or anything else for sale or trade.

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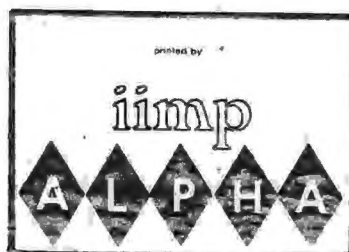


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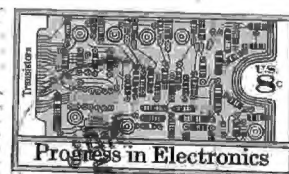
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